

In the Claims:

1. (Previously Presented) A polynucleotide sequence optimized for expression of an insecticidal protein in a plant wherein said polynucleotide sequence comprises a sequence selected from the group consisting of from about nucleotide position 7 through about nucleotide position 1803 as set forth in SEQ ID NO:3, from about nucleotide position 2650 through about nucleotide position 4446 as set forth in SEQ ID NO:5, from about nucleotide position 3047 through about nucleotide position 4844 as set forth in SEQ ID NO:8, from about nucleotide position 1247 through about nucleotide position 3043 as set forth in SEQ ID NO:11, and from about nucleotide position 1658 through about nucleotide position 3454 as set forth in SEQ ID NO:13.
2. (Previously Presented) The polynucleotide sequence according to claim 1 wherein said sequence is SEQ ID NO:3 from about nucleotide position 7 through about nucleotide position 1803.
3. (Cancelled) ~~The polynucleotide sequence according to claim 1 wherein said sequence is SEQ ID NO:5 from about nucleotide position 2650 through about nucleotide position 4446.~~
4. (Previously Presented) The polynucleotide sequence according to claim 1 wherein said sequence is SEQ ID NO:8 from about nucleotide position 3047 through about nucleotide position 4844.
5. (Cancelled) ~~The polynucleotide sequence according to claim 1 wherein said sequence is SEQ ID NO:11 from about nucleotide position 1247 through about nucleotide position 3043.~~
6. (Cancelled) ~~The polynucleotide sequence according to claim 1 wherein said sequence is SEQ ID NO:13 from about nucleotide position 1658 through about nucleotide position 3454.~~
7. (Currently Amended) A polynucleotide sequence encoding an insecticidal protein, said protein being selected from the group consisting of SEQ ID NO:2 from about amino acid position 2 through about amino acid position 600, SEQ ID NO:4 from about amino acid position 3 through about amino acid position 601, SEQ ID NO:7 from about amino acid position 3 through about amino acid position 601, SEQ ID NO:10 from about amino acid position 3 through about amino acid position 601, SEQ ID NO:12 from about amino acid position 3 through about amino acid position 601, and SEQ ID NO:14 from about amino acid position 3 through about amino acid position 601;

wherein said polynucleotide sequence encoding said protein is selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:8, SEQ ID NO:11, and SEQ ID NO:13.

8. ~~(Cancelled) The polynucleotide sequence of claim 7 wherein said polynucleotide sequence encoding said protein is selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:8, SEQ ID NO:11, and SEQ ID NO:13.~~
9. (Previously Presented) A expression cassette comprising the polynucleotide sequence substantially as set forth in SEQ ID NO:3 which functions in plants to produce an insecticidal protein, wherein said expression cassette is selected from the group consisting of SEQ ID NO:5, SEQ ID NO:8, SEQ ID NO:11, and SEQ ID NO:13.
10. (Previously Presented) A plant comprising a polynucleotide sequence optimized for expression of an insecticidal protein in a plant wherein said polynucleotide sequence comprises a sequence selected from the group consisting of from about nucleotide position 7 through about nucleotide position 1803 as set forth in SEQ ID NO:3, from about nucleotide position 2650 through about nucleotide position 4446 as set forth in SEQ ID NO:5, from about nucleotide position 3047 through about nucleotide position 4844 as set forth in SEQ ID NO:8, from about nucleotide position 1247 through about nucleotide position 3043 as set forth in SEQ ID NO:11, and from about nucleotide position 1658 through about nucleotide position 3454 as set forth in SEQ ID NO:13.
11. (Previously Presented) A seed or progeny produced from the plant of claim 10, wherein said seed or progeny comprises said sequence selected from the group consisting of from about nucleotide position 7 through about nucleotide position 1803 as set forth in SEQ ID NO:3, from about nucleotide position 2650 through about nucleotide position 4446 as set forth in SEQ ID NO:5, from about nucleotide position 3047 through about nucleotide position 4844 as set forth in SEQ ID NO:8, from about nucleotide position 1247 through about nucleotide position 3043 as set forth in SEQ ID NO:11, and from about nucleotide position 1658 through about nucleotide position 3454 as set forth in SEQ ID NO:13.
12. (Previously Presented) A plant cell comprising a polynucleotide sequence optimized for expression of an insecticidal protein in a plant wherein said polynucleotide sequence comprises a sequence selected from the group consisting of from about nucleotide position 7 through about

nucleotide position 1803 as set forth in SEQ ID NO:3, from about nucleotide position 2650 through about nucleotide position 4446 as set forth in SEQ ID NO:5, from about nucleotide position 3047 through about nucleotide position 4844 as set forth in SEQ ID NO:8, from about nucleotide position 1247 through about nucleotide position 3043 as set forth in SEQ ID NO:11, and from about nucleotide position 1658 through about nucleotide position 3454 as set forth in SEQ ID NO:13.

13. (Previously Presented) A method for producing a transgenic plant cell expressing an insecticidal Cry1Bb endotoxins fragment, said method comprising transforming a plant cell with a polynucleotide sequence comprising a plant functional promoter operably linked to a nucleotide sequence encoding said fragment wherein said nucleotide sequence is selected from the group consisting of from about nucleotide position 7 through about nucleotide position 1803 as set forth in SEQ ID NO:3, from about nucleotide position 2650 through about nucleotide position 4446 as set forth in SEQ ID NO:5, from about nucleotide position 3047 through about nucleotide position 4844 as set forth in SEQ ID NO:8, from about nucleotide position 1247 through about nucleotide position 3043 as set forth in SEQ ID NO:11, and from about nucleotide position 1658 through about nucleotide position 3454 as set forth in SEQ ID NO:13.
14. (Currently Amended) A method for producing a transgenic plant resistant to lepidopteran insect infestation comprising:
  - a) transforming a plant cell with a polynucleotide sequence comprising a plant functional promoter operably linked to a nucleotide sequence as set forth at SEQ ID NO:3 encoding an insecticidal Cry1Bb delta endotoxin fragment; and
  - b) regenerating a transgenic plant from said plant cell, wherein said transgenic plant comprises said polynucleotide sequence and expresses insecticidally effective amounts of said fragment.
15. (Previously Presented) A method for producing a transgenic plant resistant to insect infestation comprising breeding together
  - a) a first plant transformed to contain a first nucleotide sequence encoding a first Bt insecticidal protein and a first selectable marker with
  - b) a second plant transformed to contain a second nucleotide sequence different from the first, wherein said second nucleotide sequence encodes a second Bt insecticidal protein different from the first, and a second selectable marker different from the first

wherein said transgenic plant comprises both the first and the second nucleotide sequences;

wherein the first and the second selectable markers are selected from the group consisting of antibiotic resistance genes, herbicide resistance genes, and genes encoding enzymes that react with a substrate to form a product that is visually or immunologically observable;

wherein the first Bt insecticidal protein comprises an insecticidal fragment of a Cry1Bb protein as set forth in SEQ ID NO:3 from about nucleotide position 7 through about nucleotide position 1803; and

wherein the second Bt insecticidal protein is selected from the group of toxins consisting of a Cry1, Cry2, Cry3, Cry4, Cry5, Cry6, Cry9, Cry22, a Cry binary toxin, a VIP toxin, a TIC901 or related toxin, and combinations thereof.

16. (Previously Presented) The method of claim 15 wherein said herbicide resistance genes are selected from the group consisting of a gox gene, a gene encoding an EPSPS that is insensitive to glyphosate inhibition, a phnO gene, a bar gene, and a glyphosate acetylase gene.
17. (Cancelled) ~~A nucleotide sequence encoding at least an insecticidal fragment of a Cry1Bb delta endotoxin protein, said protein comprising an amino acid sequence as set forth in SEQ ID NO:4 from about amino acid position 3 through about amino acid position 601, wherein said nucleotide sequence hybridizes under stringent conditions with a nucleotide sequence as set forth in SEQ ID NO:3 from about nucleotide position 7 through about nucleotide position 1803.~~
18. (Cancelled) ~~A composition comprising an insecticidally effective amount of a Cry1Bb endotoxin protein or insecticidal fragment thereof expressed in a plant from a segment of a nucleotide sequence as set forth in SEQ ID NO:3 from about nucleotide position 7 through about nucleotide position 1803 or from a nucleotide sequence encoding said protein or fragment thereof that hybridizes to said segment.~~
19. (Previously Presented) A biological sample derived from a plant, tissue, or seed, wherein said sample comprises a nucleotide sequence which is or is complementary to a sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:8, SEQ ID NO:11, and SEQ ID NO:13, and wherein said sequence is detectable in said sample using a nucleic acid amplification or nucleic acid hybridization method.

20. (Currently Amended) The biological sample derived from a plant, tissue, or seed of claim 19 wherein said biological sample is selected from the group consisting of corn flour, corn meal, [~~corn syrup, corn oil, corn starch,~~] and cereals manufactured in whole or in part to contain corn by-products.
21. (Previously Presented) An extract derived from a corn plant, tissue, or seed comprising a nucleotide sequence which is or is complementary to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:8, SEQ ID NO:11, and SEQ ID NO:13.
22. (Previously Presented) The extract of claim 21 wherein said sequence is detectable in said extract using a nucleic acid amplification or nucleic acid hybridization method.